

(c) applying to the chemically-treated strip a coating comprising a single layer of a thermoplastic resin to form a protective layer on at least one surface thereof.

32. (New) A process according to claim 31, wherein the metal strip is cold-rolled metal strip.

33. (New) A process according to claim 31, wherein the metal strip has a gauge of between 0.08 and 0.50 mm.

34. (New) A process according to claim 33, wherein the strip has a gauge of 0.18 mm.

35. (New) A process according to claim 31, wherein the metal strip is cleaned electrolytically.

36. (New) A process according to claim 31, wherein the chemical coating is applied to the metal strip by a method of immersion, spraying, roller coating, or a combination thereof.

37. (New) A process according to claim 36, wherein the chemical coating is applied by immersing the metal strip into at least one chemical treatment vessel.

38. (New) A process according to claim 37, wherein the residence time of the metal strip in the chemical-treatment vessel is less than 60 seconds.

39. (New) A process according to claim 37, wherein the residence time of the metal strip in the chemical-treatment vessel is less than 30 seconds.

40. (New) A process according to claim 37, wherein the residence time of the metal strip in the chemical-treatment vessel is less than 15 seconds.

41. (New) A process according to claim 37, wherein the residence time of the metal strip in the chemical-treatment vessel is less than 10 seconds.

42. (New) A process according to claim 31, wherein the metal strip is chemically treated at a temperature of less than 100°C.

43. (New) A process according to claim 31, wherein the non-metallic coating of an oxyanion provides an anti-corrosive, adhesion promoting chemical coating between the metal strip and thermoplastic resin.

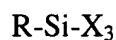
44. (New) A process according to claim 31, wherein the chemical coating comprises one or more oxyanions selected from phosphate, chromate, oxalate and arsenate.

45. (New) A process according to claim 44, wherein the chemical coating comprises a two component organic polymer.

46. (New) A process according to claim 31, wherein the chemical coating comprises chromium, silicon and an organic active species.

47. (New) A process according to claim 31, wherein the chemical coating comprises one or more of yttrium, elements in the lanthanum series of the periodic table, silanes or azoles.

48. (New) A process according to claim 31, wherein the chemical coating comprises silanes of the general formula



where R is an organofunctional group linked to silicon by a hydrolytically stable bond and X denotes a hydrolyzable group.

49. (New) A process according to claim 31, wherein the chemical coating comprises one or more phosphates selected from the group consisting of zinc orthophosphate, manganese phosphate, and iron phosphate.

50. (New) A process according to claim 31, wherein the chemical coating comprises less than 5 atomic % chromium.

51. (New) A process according to claim 31, wherein the chemically-treated metal strip is rinsed and/or dried prior to the application of a coating of a thermoplastic resin.

52. (New) A process according to claim 31, wherein the thermoplastic resin is applied to one or both sides of the chemically-treated metal strip.

53. (New) A process according to claim 31, wherein the coating of thermoplastic resin is melted and rapidly quenched to attain the required degree of crystalline structure.

54. (New) A process according to claim 31, wherein the chemically-treated metal strip is extrusion coated with at least one thermoplastic resin.

55. (New) A process according to claim 54, wherein the film of thermoplastic resin is bonded to the chemically-treated metal strip under conditions of elevated temperature and pressure.

56. (New) A process according to claim 31 wherein the layer comprising an oxyanion further comprises a polyester or an acid or acid-anhydride polyolefin resin, said acid or acid-anhydride containing carboxyl or anhydride groups.

57. (New) A process according to claim 56, wherein the thickness of the layer comprising an oxyanion layer is between 1 and 10 μm .

58. (New) A process according to claim 31, wherein the thermoplastic resin comprises polypropylene (PP), polyethyleneterephthalate (PET) or a combination thereof.